DRAFT

Order
on additives permitted in food products
(Order on additives. OAdd)

dated ....

The Federal Department of the Interior

Having noted Article 8, paragraph 2 of the Order on Food Additives (ODA) dated ....[1)]

decides:

Section 1: General provisions

Article 1 Principle

[1]Only the substances mentioned in the positive lists (Art. 8 to 21) may be used as additives.

[2]The additives authorized for various food products and for sweetening preparations, and also their maximum quantities, are stated in the application list (Appendix 2). Other food products may not contain additives.

Art. 2 Temporary authorization

[1]Until the lists are amended by the Federal Department of the Interior, the Federal Public Health Office (Federal Office) may, on receipt of a request supported by reasons, authorize other additives and establish the maximum concentrations in each food product concerned. It establishes the duration of the authorization and publishes it in the Federal Bulletin.

[2]The authorization is granted when:
a. sufficient technical need is demonstrated and if the desired aim cannot be achieved by other economically and technically applicable methods;
b. the proposed dose does not present any risk to health;
c. analytical documents are produced;
d. the consumer is not led into error by the use of the additives.

[1)] RS ...; RO ....

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Source: https://www.industrydocuments.ucsf.edu/docs/ztgj0000

Art. 3 Additives generally authorized and additives introduced by transfer

[1]Within the framework of good manufacturing practice, the following additives are generally authorized:
a. The antioxidants listed in Article 9, para. 2.
b. The acids, bases and salts listed in Article 14, para. 2.

[2]Transferred additives are additives coming from ingredients of a compound food product the transfer is permitted under the following conditions ("carry-over" principle):
a. the additive must be authorized in the ingredient used, and
b. its quantity in the finished product must not exceed the quantity corresponding to the maximum content permitted for the proportion of the ingredient used in the finished product.

Art. 4 Additive preparations

[1]Depending on the technological requirements, additives may be used in the form of preparations comprising bases, solvents or diluents, etc. Therefore, subject to paragraphs 2 and 3, ingredients, other additives and also the substances listed below may be used if they have no technological or sensorial effects on the finished product, and if they do not significantly change the composition:
a. benzyl alcohol*)
b. ethyl acetate*)
c. glyceryl acetate
d. propanol-2 (isopropanol)*)
e. sodium starch octenylsuccinate*)

*) only in flavours

[2]Except for sweetening preparations in accordance with article 19, para. 3 and baking powder in accordance with Article 20, para. 2c, additive preparations may also contain, apart from colours, potassium nitrate and sodium nitrate, sodium nitrite, biphenyl, ortho-phenylphenol, sodium orthophenylphenolate, thiabendazole, hexamethylenetetramine, boric acid and sodium tetraborate, whatever the authorized additive included in the positive lists.

[3]Additive preparations can only be used in food products for which the various additives constituting the preparation are authorized in accordance with the application list (Appendix 2). Additives not permitted for the various food products may be used in additive preparations if:
a. they are necessary for the manufacture or use of the additive preparations;
b. they no longer have technological or sensorial effects in the food product (finished product);
c. their quantity transferred into the finished product does not exceed:
   1. 5 mg per kg or litre for antioxidants (positive list 2b);
   2. 20 mg per kg or litre for preservatives (positive list 3);
   3. 10 mg per kg or litre for sulphuric acid or its compounds.

Sources: https://www.industrydocuments.ucsf.edu/docs/ztgj0000

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Art. 5 Purity criteria

[1]Additives must not have a content of organic or inorganic compounds, and in particular heavy metals, which presents a risk to health.

[2]The Federal Office defines adequate technical standards for specifying the purity criteria in accordance with paragraph 1. They are published in the Federal Bulletin stating their concentration, and also the place where they may be found or the source from where they may be obtained.

Art. 6 Declaration of additives for pre-packaged food products

[1]Additives must be classified, in accordance with their effect on the food product concerned, in accordance with one of the categories given in Appendix 3 and mentioned in the composition list (Art. 30 ODA) with the name of the corresponding category and the name of the additive itself or the E number allocated to it. The following provisions should be considered in this respect:

a. If an additive belongs to several categories, the category relating to its main function in the food product concerned should be mentioned.
b. Additives classified in the positive lists 4 (emulsifiers), 5 (gelling agents and thickeners), 6 (anti-caking agents) and 11 (glazing agents) may, depending on their main function in the food product concerned, also be classified in other categories given in Appendix 3.
c. Additives which cannot be classified in any of the categories in Appendix 3 must be declared by their own name, which may be completed by the E number.
d. Sulphuric acid and its compounds (no. 2b.6 and no. 3.1), up to a quantity of 10 mg SO_2/kg or litre, and the enzymes (no. 10.1-10.11) should not be declared.
e. Flavours should be declared by the term "flavour" or by a more precise name or a description of the flavour.
f. The term "natural" or any other synonymous information can only be used to categorize flavours if the flavouring components of the flavour only contain natural flavouring substances (Art. 15, para. 2, provision a) or flavouring preparations (Art. 15, para. 3).
g. For flavours whose name contains a reference to a particular food product or particular flavouring source, the term "natural" or any other synonymous information can only be used if the product corresponds to the description in paragraph f. and if the flavouring components have been exclusively or virtually isolated from the food product or flavouring source concerned.
h. The declaration of transferred additives is in accordance with Article 32, para. 2 ODA.
i. The ingredients and additives which form part of additive preparations, and also additives used as manufacturing agents should not be declared.

[2]The special provisions contained in the last column of the application list (Appendix 2) are reserved.

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Art. 7 Declaration of additives as such

[1]For additives or additive preparations intended for sale to consumers, the following information must be stated on the packaging or label:

a. the name of the category (e.g. colours, gelling agents);
b. the purpose of its use, the method of use and the dosage specification;
c. each component with the established name, in decreasing order of weighted importance; for each additive, the corresponding name and the E number must be used;
d. the date of minimum durability (Art. 27, para. 1 ODA);
e. the name or company name of the manufacturer, importer or vendor;
f. the batch of the goods;
g. the net weight.

[2]The following information must be stated on the packaging or labels of sweetening preparations:

a. the name "sweetener" followed by the name of the compound (e.g. "Sweetener saccharin");
b. the type and quantity of the components according to tablet or packaging unit;
c. the sweetening power in relation to sugar (sucrose), e.g. "the sweetening power of a tablet corresponds to that of a lump of sugar (4 g)";
d. the information given in para. 1, points d-g.

[2]If the additives and additive preparations are delivered as such to intermediate users, the following information must be stated on the packaging, label, delivery note or on a written declaration unique to each user:

a. mention of the use for particular food products;
b. the components with the names established in decreasing order of weighted importance; for each additive, the corresponding name and the E number must be used;
c. if necessary, special instructions for storage and use;
d. the information stated in para. 1, points d-g;
e. all the necessary information concerning the requirements on the maximum quantities of additives and the ingredients in the finished product.

Section 2: Special provisions

Art. 8 Colours

[1]Colours (Appendix 1, positive list 1) are substances which, because of their physico-chemical properties, may be used to colour food products.

[2]A distinction is made between:

a. colours which are found naturally in food products and are obtained by physical or chemical processes or are synthesized, and whose use is authorized for colouring the mass and also the surface of food products;

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b. colours which are not found naturally in food products and are obtained by physical or chemical processes or are synthesized, and whose use is authorized for colouring the mass and also the surface of food products;
c. colours obtained by a physical or chemical process or synthesized, whose use is only authorized for particular purposes.

[3]Natural colouring juices of fruits or vegetables, their concentrates and powders, colouring spices, and also other colouring ingredients are not considered as colours.

Art. 9 Antioxidants

[1]Antioxidants are substances which act against the alteration of food products due to oxygen in air, light, traces of metals or certain enzymes. The following belong to this category (positive list 2):

2a.1 tocopherols (E306, 307, 308, 309)
2a.2 L-ascorbic acid (E300) and sodium L-ascorbate (E301), potassium L-ascorbate and calcium L-ascorbate (E302)
2a.3 ascorbyl palmitate (E304) and ascorbyl stearate (E305)
2a.4 citric acid (E330) and sodium citrate (E331), potassium citrate (E332) and calcium citrate (E333)
2a.5 mono- and diglycerides of fatty acids esterified with citric acid (monoglyceride citrate) (E472c)
2a.6 lecithin (E322)
2b.1 propyl gallate (E310)
2b.2 octyl gallate (E311)
2b.3 dodecyl gallate (E312)
2b.4 butylated hydroxyanisol (BHA) (E320)
2b.5 butylated hydroxytoluene (BHT) (E321)
(sulphuric acid (sulphur dioxide) (E220)
(sodium hydrogen sulphite (E222)
2b.6 (sodium sulphite (E221) and calcium sulphite (E226)
(sodium bisulphite (pyrosulphites, metabisulphites) (E223) and potassium bisulphite (E224)
2b.7 isoascorbic acid (E315) and sodium isoascorbates (E316)

[2]The addition of the antioxidants listed in list 2a to the food products included in the application list is authorized in accordance with good manufacturing practice (BPF). Derogations are reserved.

Art. 10 Preservatives

Preservatives are substances whose direct effect delays or prevents undesirable microbiological changes in food products, in particular their deterioration. The following belong to this category (positive list 3):

3.1 formic acid (E236), sodium formate (E237) and calcium formate (E238)

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(sulphuric acid (sulphur dioxide) (E220)

3.2 (sodium sulphite (E221)
(sodium hydrogen sulphite (E222)
(sodium bisulphite (pyrosulphites, metabisulphites) (E223) and potassium bisulphite (E224)
(calcium sulphite (E226)
(calcium hydrogen sulphite (E227) and potassium hydrogen sulphite (E228)

3.3 propionic acid (E280) and sodium propionate (E281), potassium propionate (E283) and calcium propionate (E282)

3.4 benzoic acid (E210) and sodium benzoate (E211), potassium benzoate (E212) and calcium benzoate (E213)

3.5 methyl ester (E218), ethyl ester (E214) and propylic ester (E216) of p-hydroxbenzoic acid and their sodium derivatives (E219, E215, E217)

3.6 sorbic acid (E200) and sodium sorbate (E201), potassium sorbate (E202) and calcium sorbate (E203)

3.7 ethanol

3.8 biphenyl (diphenyl) (E230)

3.9 ortho-phenylphenol (E231) and sodium ortho-phenylphenolate (E232)

3.10 thiabendazole (E233)

3.11 hexamethylenetetramine (E239)

3.12 boric acid and sodium tetraborate (borax).

Art. 11 Emulsifiers

Emulsifiers are organic substances which act on the surface of separation and permit or facilitate the fine dispersion of two or more non-miscible phases in the food products. The following belong to this category (positive list 4):

4.1 lecithin (E322)

4.2 mono- and diglycerides of food fatty acids (E471)

4.3 mono- and diglycerides of food fatty acids esterified with

4.3.1 citric acid (E472c) or

4.3.2 diacetyl tartaric acid (E472e) or

4.3.3 acetic acid (E472a) or

4.3.4 lactic acid (E472b) or

4.3.5 tartaric acid (E472d) or

4.3.6 acetic acid and tartaric acid (E472f)

4.4 polyglyceride esters of food fatty acids (E475)

4.5 propyleneglycol esters (1,2-propanediols) of food fatty acids (E477)

4.6 sucro-esters (sucrose esterified with food fatty acids (E473)

4.7 sucro-glycerides (a mixture of sucro-esters and mono- and diglycerides) (E474)

4.8 sodium stearoyl-2-lactylate (E481), potassium stearoyl-2-lactylate and calcium stearoyl-2-lactylate (E482)

4.9 ammonium salts of phosphatic acids (E442)

4.10 polyglyceride esters of interesterified ricinoleic acid (E476)

4.11 sodium lauryl sulphate (E487)

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Art. 12 Gelling and thickening agents

[1]Gelling and thickening agents are substances (usually organic, hydrophilic) which in food products are likely to form viscous solutions or suspensions, and also elastic gels, retaining their shape. They generally have a stabilizing effect on different dispersed systems. The following belong to this category (positive list 5):

5.1 gelose (agar-agar) (E406)
5.2 alginic acid (E400) and ammonium alginate (E403), sodium alginate (E401) potassium alginate (E402) and calcium alginate (E404)
5.3 carrageenan (E407)
5.4 guar gum (E412)
5.5 gum arabic (acacia) (E414)
5.6 carob bean seed gum (locust bean gum) (E410)
5.7 karaya (Rassorah gum) (E416)
5.8 pectin (E440)
5.9 propyleneglycol alginate (E405)
5.10 food gelatin
5.11 tara gum (gum of the Peruvian carob tree) (E417)
5.12 tragacanth (E413)
5.14 hydroxypropyl cellulose (E463)
5.15 hydroxypropyl methyl cellulose (E464)
5.16 methyl ethyl cellulose (E465)
5.17 methyl cellulose (E461)
5.18 microcrystalline cellulose (E460)
5.19 sodium carboxymethyl cellulose (E466)
5.20 modified starch
5.20.1 diamide phosphate (E1411, E1412)
5.20.3 monoamide acetate (E1420, E1421)
5.20.4 acetyl diamide phosphate (E1414)
5.20.5 hydroxypropyl starch (E1440)
5.20.6 hydroxypropyl diamide phosphate (E1442)
5.20.7 diamide glycerol (E1430)
5.20.8 acetyl diamide glycerol (E1423)
5.20.9 hydroxypropyl diamide glycerol (E1441)
5.20.10 acetyl diamide adipate (E1422)
5.20.11 diamide citrate
5.21 silicon dioxide (E551)
5.22 xanthan gum (E415)

[2]Natural starches, heat-treated starches (E1400), starches treated with acids (1401) or bases (E1402), bleached starches (E1403), oxidized starches (E1404), enzyme-treated starches (E1405) and also monoamide phosphate (E1410) are not considered as additives.

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Source: https://www.industrydocuments.ucsf.edu/docs/ztgj0000

Art. 13 Anti-caking agents

Anti-caking agents are substances which are added to hygroscopic food products, generally in powder form, to prevent caking and maintain fluidity. The following belong to this category (positive list 6):

6.1 ammonium stearate, sodium stearate (E470), potassium stearate (E470), magnesium stearate, calcium stearate (E470) and aluminium stearate
6.2 magnesium carbonate and calcium carbonate (E170)
6.3 silicon dioxide (E551)
6.4 calcium silicate (E552) and magnesium silicate (E553)
6.5 sodium silico aluminate (E554) and calcium silico aluminate (E556)
6.6 tricalcium phosphate (basic) (E341)
6.7 sodium ferrocyanide (hexacyanoferrates (II)), potassium ferrocyanide (E536) and calcium ferrocyanide (E538)

Art. 14 Bases, acids, salts

'Bases, acids and salts are used for various purposes in the manufacture of food products. The following belong to this category (positive list 7):

7.1 potassium chloride (E508) and calcium chloride (E509)
7.2 DL-malic acid (E296) and ammonium malate (E349), sodium malate (E350), potassium malate (E3501) and calcium malate (E352)
7.3 ammonium carbonate (E503), sodium carbonate (E500), potassium carbonate (E501), magnesium carbonate (E504) and calcium carbonate (E170)
7.4 citric acid (E330) and ammonium citrate (E380), sodium citrate (E331), potassium citrate (E332), magnesium citrate (E345) and calcium citrate (E333)
7.5 acetic acid (E260) and ammonium acetate (E264), sodium acetate (E262), potassium acetate (E261), magnesium acetate, calcium acetate (E263) and sodium diacetate (E262)
7.6 delta-gluconolactone (E575)
7.7 gluconic acid (E574) and sodium gluconate (E576) and calcium gluconate (E578)
7.8 ammonium hydrogen carbonate (E503), sodium hydrogen carbonate (E500) and potassium hydrogen carbonate (E501)
7.9 ammonium hydroxide (E527), sodium hydroxide (E524), potassium hydroxide (E525), magnesium hydroxide (E528) and calcium hydroxide (E526)
7.10 DL-lactic acid (E270) and ammonium lactate (E328), sodium lactate (E325), potassium lactate (E326) and calcium lactate (E327)
7.11 magnesium oxide (E530) and calcium oxide (E529)
7.12 ortho-phosphoric acid (E338)
7.13 monophosphates (ortho-phosphates), mono-, di- or tribasic, of ammonium (E342), sodium (E339), potassium (E340), magnesium (E343), calcium (E341), aluminium and sodium (E541)
7.14 diphosphates (pyrophosphates) of ammonium (E450), sodium (E450), potassium (E450) and calcium (E450)
7.15 sodium triphosphate (penta-) (E451)

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7.16 polyphosphoric acid (of which 8% max. cyclic) and sodium polyphospate (E452), potassium polyphosphate (E452), calcium polyphosphate (E452), and sodium and calcium polyphosphate (E452)
7.17 hydrochloric acid (E507)
7.18 sodium sulphate (E514), potassium sulphate (E515) and calcium sulphate (E516)
7.19 L-tartaric acid (E334) and ammonium tartrate, sodium tartrate (E335), potassium tartrate (E336), calcium tartrate (E354) and potassium and sodium tartrate (E337)
7.20 ammonium chloride (E510)
7.21 meta-tartaric acid (E353)

[2]The addition of substances no. 7.3, 7.8, 7.9, 7.11 and 7.17 is authorized in accordance with good manufacturing practice (BPF) in the food products included on the positive list. Derogations are reserved.

Art. 15 Flavours

[1]Flavours are understood to be flavouring substances, flavouring preparations, processing flavours, smoked flavours and also their mixtures.

[2]Flavouring substances are chemical substances defined as having flavouring properties; the following are distinguished:

a. natural flavouring substances: they are obtained either by appropriate physical processes (including distillation and extraction by solvents), or by enzymatic or microbiological processes, from materials of vegetable or animal origin in their raw state or processed for human consumption by traditional methods of preparing food products (including drying, torrefaction and fermentation);

b. flavouring substances identical to natural ones: these are obtained by appropriate chemical synthesis or are isolated chemically; their chemical or physical structure is identical to that of a substance found naturally in a material of vegetable or animal origin in accordance with point a.;

c. artificial flavouring substances: these are obtained by chemical synthesis; their chemical structure is not identical to a substance which is found naturally in a material of vegetable or animal origin in accordance with point a.

[3]Flavouring preparations are products which are concentrated or otherwise, which have flavouring properties and which come under para. 2. point a. They are obtained either by appropriate physical processes (including distillation and extraction by solvents), or by enzymatic or microbiological processes, from materials of vegetable or animal origin in the raw state or processed for human consumption by traditional methods of preparation of food products (including drying, torrefaction and fermentation).

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[4]Processing flavours are products which, in accordance with good manufacturing practice, are obtained by heating, for a maximum of 15 minutes at a temperature not exceeding 180°C, a mixture of ingredients which do not necessarily have flavouring properties, and of which at least one contains nitrogen (amino groups) and another is a reducing sugar.

[5]Smoked flavours are smoke extracts used in traditional processing for smoking food products.

[6]Flavours must conform to scientific and technical knowledge. They must not add to a food product more than 0.03 µg of 3,4-benzopyrene per kg of product ready for consumption.

[7]Food products cannot contain the substances mentioned in Appendix 4 unless they:
a. come from flavours of which they naturally form part;
b. do not exceed, in the product ready for consumption, the maximum quantities established in Appendix 4.

Art. 16 Flavour enhancers

Flavour enhancers are organic substances which, without having a strong flavour of their own, nevertheless have the property of strengthening the flavour of food products. The following belong to this category (positive list 9):

9.1 L-glutamates (E620) of ammonium (E624), sodium (E621), potassium (E622), calcium (E623) and magnesium (E625)
9.2 guanylates (E626) of natrium (E627), potassium (E628), calcium (E629) and magnesium
9.3 inosinates (E630) of sodium (E631), potassium (E632), calcium (E633) and magnesium

Art. 17 Enzymes

Enzymes (ferments) are protein substances of high molecular weight, formed inside cells which, as biocatalysts, specifically accelerate the process of various chemical reactions. The enzyme preparations currently used in the manufacture of food products are mainly used for the preliminary treatment or breaking up of certain raw materials or particular compounds. The following belong to this category (positive list 10):

10.1 amylase
10.2 protease
10.3 pentosenase
10.4 invertase
10.5 pectinase
10.6 glucose oxidase
10.7 β-glucanase
10.10 lactase

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Art. 18 Glazing agents

Glazing agents are substances which only adhere to the surface of the food product, giving it suitable surface properties, and they can also have some physical effects, in particular providing protection. The following belong to this category (positive list 11):

11.1 beeswax (E901)
11.2 carnauba wax (E903)
11.4 food gelatin
11.5 modified vegetable oils
11.6 saturated triglycerides based on vegetable raw materials
11.7 monoglycerides of food fatty acids, esterified with acetic acid (E472a)
11.8 alkaline salts and calcium salts of oleic acid (E470)
11.9 gum arabic (E414)
11.10 shellac (E904)
11.11 esters of rosin
11.12 caumarone-indene resin
11.13 paraffin and paraffin oil (E905a)
11.14 oxidized polyethylene (minimum molecular mass 1200; maximum oxygen content 5%)
11.15 polyvinyl acetate
11.16 polyethylene polysulphide
11.17 calcium silicate (E552) and magnesium silicate (E553)

Art. 19 Sweeteners

[1]Sweeteners are chemical compounds which do not belong to the carbohydrates group; their sweetening potency is considerably greater than that of sucrose but, in relation to their sweetening power, they have no or very little nutritional value.

[2]Sweeteners can only be added to dietetic and special food products. The Federal Office can authorize exceptions.

[3]Sweetening preparations, sold in the form of powder or tablets, may contain bases (e.g. dextrins). Tablets may also contain lactose. Mixtures with sucrose or other kinds of sugars are not authorized.

[4]The following belong to the sweeteners category (positive list 12):

12.1 saccharin (benzoic sulphimide and its sodium, potassium and calcium salts) (E954)
12.2 cyclamate (cyclohexylsulphamic acid and its sodium and calcium salts) (E952)
12.3 aspartame (L-aspartyl-L-phenylalanine methyl ester) (E951)
12.4 acesulphame K (potassium salt of 6-methyl 1,2,3-oxathiazine-(3H)-4-one-2,2-dioxide) (E950)
12.5 thaumatine (extract of Thaumatococcus daniellii Benth.) (957)
12.6 neohesperidin DC (E959)

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Art. 20 Baking powder

[1]Baking powders are understood to be substances which make dough rise and which give it a honeycomb structure by releasing carbonic acid without the intervention of yeast.

[2]The powder may contain flour and starch as a base. It must be finely powdered.

[3]The quantity of baking powder for 1 kg of flour must release at least 1500 cm^3 active carbonic acid; its surplus sodium hydrogen carbonate must not exceed 3 g.

[4]100 g baking powder must release at least 4500 cm^3 active carbonic acid.

[5]The following belong to the baking powder category (positive list 13):

13.1 ammonium carbonate (E503), ammonium hydrogen carbonate (E503)
13.2 the mixture of ammonium carbonate, ammonium hydrogen carbonate and ammonium carbaminate (deer horn salt)
13.3 sodium hydrogen carbonate (E500) mixed with acid phosphates (E339-341), acid pyrophosphates (E450), citric acid (E330) or tartaric acid (E334)

Art. 21 Other sundry additives

The following belong to this list (positive list 14):

14.1 ascorbic acid (E300)
14.2 microcrystalline cellulose (E460)
14.3 quinine
14.4 dimethylpolysiloxane (E900a)
14.5 glycerol (E422)
14.6 copper(II) sulphate (E519)
14.7 naringin (5-rhamnoglucoside of naringenin) and hesperidin
14.8 caffeine
14.10 paraffin and mineral oil (E905a)
14.11 polyvinylpyrrolidone (E1201)
14.12 propylene glycol (1,2 propanediol) (E1521)
14.13 stearine, calcium stearate (E470) and magnesium stearate (E470)
14.14 tin(II) chloride
14.15 calcium silicate (E552) and magnesium silicate (E553)
14.16 food gelatin
14.17 triethyl citrate (E1505)
14.18 l-cysteine
14.19 triglycerides of medium chain fatty acids (MCT)
14.20 glycine (E640)
14.21 iron(II) gluconate (E579)
14.22 L-leucine (E641)
14.23 sorbitol, sorbitol syrup (E420)
14.24 sodium nitrite (E250)
14.25 sodium nitrate (E251) and potassium nitrate (E252)

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Source: https://www.industrydocuments.ucsf.edu/docs/ztgj0000

Section 3: Final provisions

Art. 22 Repeal of current legislation

The order of 20th January 1982[1)] on additives permitted in food products is repealed.

Art. 23 Transitional provisions

[1]Food products can only be manufactured, imported and labelled in accordance with the former legislation until the ... (1 year after entry into force) and can only be delivered in accordance with the former legislation until ... (2 years after entry into force).

[2]Additives can only be labelled in accordance with the former legislation until ... (1 year after entry into force) and can only be delivered in accordance with the former legislation until the ... (2 years after entry into force).

Art. 24 Entry into force

This order enters into force on the ... 1994.

Date

Federal Department of the Interior
Dreifuss

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1)RO 1982 342, 1984 435, 1986 580, 1987 1760, 1990 1500

Source: https://www.industrydocuments.ucsf.edu/docs/ztgj0000

Appendix 1
(Art. 8, para.1)

Positive list 1: colours

A. Colours found naturally in food products and obtained or synthesized in accordance with physical or chemical processes, which are authorized for colouring the mass and surface of food products.

No.	Colour	Usual name	EC[1] number	Colour (1971)	Index No. [2]	Chemical name as per IUPAC[3], botanical name or description
1.A.1	yellow	Curcumin (turmeric)	E 100	75300		[1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione]
1.A.2	yellow	Lactoflavin (riboflavin)	E 101	-		6,7-dimethyl (D-ribityl-1)-9 isoalloxazine
1.A.2.1	yellow	Riboflavin phosphate (ester)	E 101	-		5'-phospho-riboflavin
1.A.3	orange	Carotenoids	E 160	75130		basically trans isomers
1.A.3.1	orange	Alpha-, beta-, gamma-carotene	E 160a	40800		basically trans isomers
1.A.3.2	orange	Bixine, norbixine (annato, roucou)	E 160b	75120		the main colour from oily extracts of roucou is bixine, a colour of the carotenoids group. Bixine is the monomethyl ester of norbixine. Norbixine is a symmetrical dicarboxylic acid. The main colour from aqueous extracts of roucou is the alkaline salt of norbixine
1.A.3.3	orange	Capsantein, capsorubin	E 160c	-		paprika extract
1.A.3.4	orange	Lycopene	E 160d	-		basically trans isomer
1.A.3.5	orange	8'-beta-apo-carotenal (C_{10})	E 160e	40820		basically trans isomer

1) EC = European Community
2) Colour Index = Classification according to "The Society of Dyers and Colourists, Bradford/England" and "The American Association of Textile Chemist and Colorist, Lowell (Mass./USA)"
3) IUPAC = International Union of Pure and Applied Chemistry

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No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC or description
1.A.3.6	orange	Ethyl ester of 8'-beta-apo-carotenic acid (C_{10})	E 160f	40825		basically trans isomer
1.A.4	orange	Xanthophylls	E 161	-		xanthophylls are ketone derivatives and/or carotene hydroxyls
1.A.4.1	orange	Flavoxanthine	E 161a	-		
1.A.4.2	orange	Lutein	E 161b	-		
1.A.4.3	orange	Cryptoxanthine	E 161c	-		
1.A.4.4	orange	Rubixanthine	E 161d	75135		
1.A.4.5	orange	Violaxanthine	E 160e	-		
1.A.4.6	orange	Rhodoxanthine	E 161f	-		
1.A.4.7	orange	Canthaxanthine	E 161g	40850		
1.A.5	red	Beetroot red, betanin	E 162	-		aqueous extract from the red root of the beetrool

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No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC or description
1.A.6	red blue	Anthocyanins	E 163	-		anthocyanins are glycosides of 2-phenyl benzopyrylium salts; they contain various hydroxyl derivatives, of which some are also methoxyls. They enclose as aglycones the following anthocyanidins: pelargonidin, cyanidin, pelargonidin, petunidin, malvidin. Anthocyanins can only be extracted from edible fruits or vegetables, such as: strawberries, mulberries, cherries, plums, raspberries, blackberries, blackcurrants, redcurrants, bilberries, whortleberries, elderberries, grapes, red cabbage, red onions and aubergines
1.A.7	green	Chlorophyll	E 140	75810		chlorophyll a: phytyl ester of the magnesium complex of [(1,3,5,8-tetramethyl-4-ethyl-2-vinyl-9-oxo-10-methoxycarbonyl) phorbinyl)]-7-propionate chlorophyll b: phytyl ester of the magnesium complex of [(1,5,8-trimethyl-3-formyl-4-ethyl-2-vinyl-9-oxo-10-methoxycarbonyl) phorbinyl)-7-propionate

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B. Colours not found naturally in food products and obtained or synthesized in accordance with physica or chemical processes which are authorized for colouring the mass and surface of food products

No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC or description*
1.8.2	yellow	Quinoline yellow	E 104	47005		disodium salt of (2,3-dihydro-1,3-dioxo-2-indenylicene)-2-quinoline-disulphonic acid. It may also contain methyl quinoline yellow and the monosulphonic acid in the form of sodium salt.
1.8.3	orange	Sunset yellow	E 110	15985		disodium salt of 2-hydroxy-1-(4-sulphophenylazo)-6-naphthalene sulphonic acid
1.8.4	red	Cochineal, carminic acid	E 120	75470		extract of coccus cacti, including the ammonium salt
1.8.5	red	Carmoisine	E 122	14720		disodium salt of 1-hydroxy-2-(4-sulphonaphthylazo)-4-naphthalene sulphonic acid
1.8.6	red	Amaranth	E 123	16185		trisodium salt of 2-hydroxy-1-(4-sulphonaphthylazo)-3,6-naphthalene-disulphonic acid
1.8.7	red	Ponceau 4R	E 124	16255		trisodium salt of 2-hydroxy-1-(4-sulphonaphthylazo)-6,8-naphthalene-disulphonic acid

* The chemical name stated is generally that of the combination with sodium. The use of the acid itself, of combinations with sodium, calcium, potassium and aluminium (even if the latter are not mentioned) and of other combinations, when they are stated, is authorized.

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No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC or description [1]
1.8.8	red	Erythrosine	E 127	45430		disodium or dipotassium salt of 2-(2,4,5,7-tetraiodo-6-hydroxy-3-oxo-3H-9-xanthenyl) benzene carboxylic acid or 2,4,5,7-tetraiode fluorescein
1.8.9	blue	Patent blue	E 131	42051		calcium or sodium salt of the internal hydroxide salt of N-ethyl N-[4-[(4-diethylaminophenyl) (5-hydroxy-2,4-disulphophenyl) methylene]-2,5-cyclohexadiene-1-ylidene] ethaneaminylium
1.8.10	blue	Indigo carmine	E 132	73015		disodium salt of 2-(2,3-dihydro-3-oxo-5-sulphoindole-2-ylidene)-2,3-dihydro-3-oxo-5-indolesulphonic or 5,5-indigodisulphonic acid
1.8.11	green	Copper complex of chlorophyll and chlorophyllin	E 141	75810		copper-chlorophyll complex and copper-chlorophyllin complex
1.8.12	green	Green S	E 142	44090		monosodium salt of the internal hydroxide salt of N-methyl N-[4[4-dimethylaminophenyl) (2-hydroxy-3,6-disulphonapthyl) methylene]-2,5-cyclohexadiene-1-ylidene] methane aminylium

[1] The chemical name stated is generally that of the combination with sodium. The use of the acid itself, of combinations with sodium, calcium, potassium and aluminium (even if they are not mentioned) and of other combinations, when they are stated, is authorized.

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No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC or description [1]
1.8.13	brown	Caramel	E 150	-		product obtained exclusively by heating sucrose or other food sugars or amorphous, hydrosoluble, brown products, obtained by controlled treatment of food-quality glucides, in the presence of one or more of the following chemical compounds: - acetic, citric, phosphoric, sulphuric and sulphurous acids, and also sulphur dioxide - hydroxides of ammonium, sodium and potassium, and ammonia - carbonates, phosphates, sulphates and sulphites of ammonium, sodium and potassium
1.8.14	black	Black PN (brilliant black PN)	E 151	28440		tetrasodium salt of 1-hydroxy-8-acetylamine 2-[4-(4-sulphophenylazo) (7-sulphonaphthylazo)]3,5-naphthalene-disulphonic acid
1.8.15	black	Carbon black/vegetable carbon	E 153	-		vegetable carbon with the properties of medicinal carbon

[1] The chemical name stated is generally that of the combination with sodium. The use of the acid itself, of combinations with sodium, calcium, potassium and aluminium (even if they are not mentioned) and of other combinations, when they are stated, is authorized.

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C. Colours authorized for certain uses only and obtained or synthesized in accordance with physical or chemical processes.

No.	Colour	Usual name	EC number	Colour (1971)	Index No.	Chemical name as per IUPAC, botanical name or description
1.C.1	white	Calcium carbonate	E 170	77220		
1.C.2	white	Titanium dioxide	E 171	77891		
1.C.3	red to yellow	Iron oxides and hydroxides	E 172	77489 77491 77492 77499		
1.C.4		Aluminium	E 173	77000		
1.C.5		Silver	E 174	-		
1.C.6		Gold	E 175	-		
1.C.7	red	Ruby pigment (Lithorubin BK)*)	E 180	15850		only the calcium and aluminium salts of 2-hydroxy (4-methyl-2-sulphophenylazo)-3-naphthalenecarboxylic acid are authorized

*) for colouring cheese crusts

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